

AMENDMENTS TO THE CLAIMS

The Listing of Claims will replace all prior versions and listings of claims in the present patent application:

Listing of Claims:

1. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

determining a voice activity level in a digitized audio signal;

generating a control signal based on the level of voice activity detected;

generating active vocoder frames at a predetermined rate in a transmitter if said control signal indicates a first level of speech activity;

generating inactive vocoder frames if said control signal indicates a second level of speech activity; and

generating transition vocoder frames if said control signal indicates a transition from said first level to said second level, said transition vocoder frames comprising background noise information; ~~and~~

~~generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.~~

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A discontinuous transmission controller, comprising:

a vocoder for generating active vocoder frames from a digitized audio signal at a predetermined output rate if speech is present, for generating inactive vocoder frames during periods of speech inactivity, and for generating transition vocoder frames during transitions from speech activity to speech inactivity, said transition vocoder frames comprising background noise information; ~~generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition vocoder frame.~~

5. (Cancelled)

6. (Currently Amended) A method for controlling discontinuous transmissions, comprising:

determining a speech activity level in a digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition vocoder frames comprising comfort information;

~~generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.~~

7. (Previously Presented) The method of claim 6, wherein said comfort information includes background noise information.

8. (Previously Presented) A method for controlling discontinuous transmissions, comprising:

receiving digitized audio signal;

determining a speech activity level in the received digitized audio signal;

generating a control signal based on the determined speech activity level;

generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

incrementing a state vector for each generated active or transition vocoder frame;

generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and

disabling the state vector for each inactive vocoder frame.

9. (Currently Amended) The method of claim 8, further including encrypting the generated active and transition vocoder frames by using the state vector.

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) An apparatus for controlling discontinuous transmissions, comprising:

means for determining a speech activity level in a digitized audio signal;

means for generating a control signal based on the determined speech activity level;

means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

means for generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and

means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition vocoder frames comprising comfort information; and

~~means for generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a the generated active or transition frame.~~

15. (Previously Presented) The apparatus of claim 14, wherein said comfort information includes background noise information.

16. (Previously Presented) An apparatus for controlling discontinuous transmissions, comprising:

means for receiving digitized audio signal;

means for determining a speech activity level in the received digitized audio signal;
means for generating a control signal based on the determined speech activity level;
means for generating active vocoder frames in a transmitter if said control signal indicates active speech activity;
means for generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;
means for incrementing a state vector for each generated active or transition vocoder frame;
means for generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and
means for disabling the state vector for each inactive vocoder frame.

17. (Currently Amended) The apparatus of claim 816, further ~~including~~comprising means for encrypting the generated active and transition vocoder frames by using the state vector.

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Currently Amended) A computer-readable medium ~~embodying means for implementing a method~~comprising instructions for controlling discontinuous transmissions, said instructions being executable by at least one computer to~~the method comprising:~~

~~determined~~determining a speech activity level in a digitized audio signal;
~~generate~~generating a control signal based on the determined speech activity level;
~~generating~~ active vocoder frames in a transmitter if said control signal indicates active speech activity;

~~generate~~generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and

~~generate~~generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity, said transition vocoder frames comprising comfort information;

~~generating a state vector corresponding to the vocoder frames, wherein the state vector is incremented only for a generated active or transition frame.~~

23. (Currently Amended) The computer-readable medium of claim 22, wherein the instructions are further executable by the at least one computer to:

generate a state vector; and

increment the state vector only for each generated active or transition vocoder frames~~said comfort information includes background noise information.~~

24. (Currently Amended) A computer-readable medium ~~embodying means for implementing a method~~comprising instructions for controlling discontinuous transmissions, said instructions being executable by at least one computer to~~the method comprising:~~

receiving~~receiving~~ digitized audio signal;

determined~~determining~~ a speech activity level in the received digitized audio signal;

~~generate~~generating a control signal based on the determined speech activity level;

~~generate~~generating active vocoder frames in a transmitter if said control signal indicates active speech activity;

~~generate~~generating transition frames in the transmitter if said control signal indicates a transition between said active speech activity and inactive speech activity;

increment~~incrementing~~ a state vector for each generated active or transition vocoder frame;

~~generate~~generating inactive vocoder frames in the transmitter if said control signal indicates inactive speech activity; and

disabled~~disabling~~ the state vector for each inactive vocoder frame.

25. (Currently Amended) The computer-readable medium of claim 24, the method further including encrypting the generated active and transition vocoder frames by using the state vector.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (New) The method of claim 1 further comprising:
generating a state vector, wherein the state vector is incremented only for each generated active or transition vocoder frame.

31. (New) The discontinuous transmission controller of claim 4, wherein:
the vocoder is further adapted to generate a state vector, wherein the state vector is incremented only for each generated active or transition vocoder frame.

32. (New) The method of claim 6 further comprising:
generating a state vector; and
incrementing the state vector only for each generated active or transition vocoder frame.

33. (New) The apparatus of claim 14 further comprising:
means for generating a state vector, wherein the state vector is incremented only for each generated active or transition vocoder frame.